ELSEVIER

Animal Feed Science and Technology
101 (2002) 215–216

ANIMAL FEED SCIENCE AND TECHNOLOGY

www.elsevier.com/locate/anifeedsci

Contents of *Animal Feed Science and Technology*, Volume 101

VOL. 101 NOS. 1–4 **25 OCTOBER 2002**

Ruminants

Gas production from straw incubated in vitro with different levels of purified carbohydrates
M. Fondevila, A. BarriosUrdaneta, J. Balcells and C. Castrillo (Zaragoza, Spain) 1
Rumen digesta kinetics in cold exposed prolific sheep: impact on protein evaluation
L.B.J. Šebek (Lelystad, The Netherlands) and H. Everts (Utrecht, The Netherlands) 17
Relationships between patterns of rumen fermentation measured in sheep and in situ degradability and the in vitro gas production profile of the diet
C. Rymer and D.I. Givens (Stratford upon Avon, UK) 31
Effect of polyethylene glycol-6000 on nutrient intake, digestion and growth of kids browsing *Prosopis cineraria*
R. Bhatta, A.K. Shinde, S. Vaithiyanathan, S.K. Sankhyan and D.L. Verma (Avikanagar, India) . 45
Post-ruminal phytate degradation in sheep
W.-Y. Park, T. Matsui and H. Yano (Kyoto, Japan) 55
Use of sunflower meal or fish meal as protein supplement for high quality fresh forage diets: ruminal fermentation, microbial protein synthesis and sites of digestion
E. Pavan and F.J. Santini (Balcarce, Argentina) 61
Rumen degradation characteristics of nutrients in maize silages and evaluation of laboratory measurements and NIRS as predictors
J.L. De Boever, J.M. Vanacker and D.L. De Brabander (Melle, Belgium) 73
Nutrient utilization and growth performance of defaunated and faunated lambs maintained on complete diets containing varying proportion of roughage and concentrate
A. Santra and S.A. Karim (Avikanagar, India) 87
Efficacy of plant extracts rich in secondary constituents to modify rumen fermentation
B.J. Śliwiński, C.R. Soliva, A. Machmüller and M. Kreuzer (Zurich, Switzerland) 101
Performance of dairy cows fed forage treated with fibrolytic enzymes prior to feeding
T.R. Dhiman, M.S. Zaman, R.R. Gimenez, J.L. Walters (Logan, UT, USA) and R. Treacher (Wiltshire, UK) 115
The effect of different moisture contents at ensiling on silo degradation and digestibility of structural carbohydrates of orchardgrass
M.S. Yahaya (Tsu, Japan), M. Kawai, J. Takahashi and S. Matsuoka (Hokkaido, Japan). 127

Non-Ruminants

Chick adaptation to diets based on milling fractions of rye varying in arabinoxylans content
D. Boros, R.R. Marquardt, W. Guenter and J. Brufau (Winnipeg, Canada) 135
Effect of *Leucaena leucocephala* leaf meal treated with acetic acid or sodium hydroxide on apparent digestibility and nitrogen retention in pig diets
V. Echeverría, R. Belmar, J. Ly and R.H. Santos-Ricalde (Yucatan, Mexico) 151

PII: S0377-8401(02)00243-2

Relative bioavailability of organic zinc sources based on tissue zinc and metallothionein in chicks fed conventional dietary zinc concentrations
J. Cao, P.R. Henry, S.R. Davis, R.J. Cousins, R.D. Miles, R.C. Littell and C.B. Ammerman (Gainesville, FL, USA) 161

General topics

Brassica by-products in diets of rainbow trout (*Oncorhynchus mykiss*) and their effects on performance, body composition, thyroid status and liver histology
O. Pereira, E. Rosa, M.A. Pires and A. Fontainhas-Fernandes (Vila Real, Portugal) 171

Effects of dry plant extracts on feed degradation and the production of rumen microbial biomass in a dual outflow fermenter
L.-P. Broudiscou (Paris, France), Y. Papon (Champanelle, France) and A.F. Broudiscou (Marseille, France) 183

Methodologies

A mixture simplex design to study associative effects with an in vitro gas production technique
C.A. Sandoval-Castro, C. Capetillo-Leal, R. Cetina-Góngora and L. Ramírez-Avilés (Yucatán, Mexico) 191

A new method to estimate microbial nitrogen escape from the rumen of the dairy cow
M.B. de Ondarza (East Lansing, MI, USA) and C.J. Sniffen (Chazy, NY, USA) 201

Contents of *Animal Feed Science and Technology*, Volume 101 215